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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,282	12/04/2003	Makoto Izawa	10973-112001 / K43-160313	7156

26211 7590 03/07/2005

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EXAMINER	
GIBSON, ERIC M	

ART UNIT	PAPER NUMBER
3661	

DATE MAILED: 03/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/728,282	IZAWA ET AL.	
	Examiner	Art Unit	
	Eric M Gibson	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-6 and 9-13* is/are rejected.

7)☒ Claim(s) *2,7 and 8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *3/18/2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/4/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1, 3-5, and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Izawa (US006229263B1) in view of Collins et al. (US005461564A).

a. Per claim 1, Izawa teaches a lighting-direction control apparatus and method for changing the irradiation direction of a lighting unit depending on the attitude of the vehicle based on a detected vehicle height that includes an identifying means for determining a vehicle height (2, figure 1) and a irradiation control means (5, figure 1) for obtaining the attitude of the vehicle based on an operation from the vehicle height detecting means and for controlling a direction of an optical axis of irradiation of the

lighting unit for the vehicle (column 2, lines 36-41). Izawa does not teach that the vehicle height detecting means includes determining the difference in a load state of the vehicle corresponding to at least one of a passenger and a carrying capacity and storage means for storing data indicative of an installation error of the vehicle height detecting means based on a difference between a reference height and an actual vehicle height for performing an initialization. Collins teaches an apparatus and method for calibrating vehicle ride height. Collins further teaches a vehicle height detecting means includes determining the difference in a load state of the vehicle corresponding to at least one of a passenger and a carrying capacity and storage means for storing data indicative of an installation error of the vehicle height detecting means based on a difference between a reference height and an actual vehicle height for performing an initialization (see figure 8). It would have been obvious to one of ordinary skill in the art, at the time of invention, to include the vehicle height sensor initialization and error correction in the system of Izawa, in order to correct the vehicle height sensor to the specific vehicle calibration, as taught by Collins.

b. Per claims 3-5, Collins teaches using current or voltage in the switches during initialization to calibrate the vehicle height sensor (column 6, lines 30-44).

c. Per claim 9, Izawa teaches that the lighting unit includes one of a headlamp, fog lamp, or cornering lamp (column 2, lines 45-46).

d. Per claim 10, Izawa teaches that the vehicle height detecting means includes a displacement related to an axle portion of a wheel (column 2, lines 47-49).

e. Per claim 11, Collins teaches that the storage means includes a non-volatile memory as well as other types that are standard in the art (column 8, lines 19-26).

f. Per claim 12, Collins teaches that the programs for performing the calibration are stored in the memory (column 8, lines 27-29).

g. Per claim 13, Izawa teaches a lighting-direction control apparatus and method for changing the irradiation direction of a lighting unit depending on the attitude of the vehicle based on a detected vehicle height that includes an identifying means for determining a vehicle height (2, figure 1) and a irradiation control means (5, figure 1) for obtaining the attitude of the vehicle based on an operation from the vehicle height detecting means and for controlling a direction of an optical axis of irradiation of the lighting unit for the vehicle (column 2, lines 36-41). Izawa does not teach that the vehicle height detecting means includes determining the difference in a load state of the vehicle corresponding to at least one of a passenger and a carrying capacity and storage means for storing data indicative of an installation error of the vehicle height detecting means based on a difference between a reference height and an actual vehicle height for performing an initialization. Collins teaches an apparatus and method for calibrating vehicle ride height. Collins further teaches a vehicle height detecting means includes determining the difference in a load state of the vehicle corresponding to at least one of a passenger and a carrying capacity and storage means for storing data indicative of an installation error of the vehicle height detecting means based on a difference between a reference height and an actual vehicle height

for performing an initialization (see figure 8). It would have been obvious to one of ordinary skill in the art, at the time of invention, to include the vehicle height sensor initialization and error correction in the system of Izawa, in order to correct the vehicle height sensor to the specific vehicle calibration, as taught by Collins.

2. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Izawa and Collins as applied to claim 1 above, and further in view of Sammut et al. (US005465209A).

a. Per claim 6, the combination teaches the invention as explained in the rejection of claim 1. The combination does not teach adjusting the load state initialization by an amount of fuel in the vehicle. Sammut teaches a vehicle level control that in the process of determining vehicle height offsets the value of the load signal by an amount equal to the fuel in the vehicle (column 8, lines 1-18). It would have been obvious to one of ordinary skill in the art, at the time of invention, to adjust the load state initialization by an amount of fuel in the vehicle in the invention of the combination, in order to make sure the vehicle height calculation is accurate, as taught by Sammut.

Allowable Subject Matter

3. Claims 2, 7, and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

a. Per claim 2, the prior art does not teach or reasonably suggest in combination the present invention including wherein the reference height value changes

when at least one of an operating signal in an initialization on an assembly line of the vehicle and a signal indicative of a state of power source is detected, and the vehicle height changes when the signal is not detected as claimed.

b. Per claim 7, the prior art does not teach or reasonably suggest in combination the present invention including wherein a reference vehicle height value obtained when an amount of fuel is a specified amount smaller than a fraction of a full amount of a fuel container is used in a first load state related to the vehicle, and a reference vehicle height value obtained when the amount of the fuel is a specified amount equal to or larger than the half of the full amount is used in a second load state related to the vehicle as claimed.

c. Claim 8 would serve to further define the invention of claim 7 over the prior art.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nishimura et al. (US20020045978A1) teaches an automatic headlight aiming device for a vehicle. Toda et al. (US006663268B1 and US006357898B1) teaches an automatic automotive headlamp leveling device. Okuchi et al. (US006234654B1) teaches a height sensor and vehicular headlight beam axis leveling apparatus. Okuchi et al. (US006193398B1) teaches a system for automatically adjusting optical axis direction of a vehicle headlight. Hayami et al. (US005907196A) teaches an irradiation direction control apparatus for vehicular lamp. Okuchi et al.

(US005877680A) teaches an apparatus for automatically aiming of headlights of an automotive vehicle.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M Gibson whose telephone number is (703) 306-4545. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (703) 305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EMG

MICHAEL J. ZANELLI
PRIMARY EXAMINER